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| 087120-105 | 09/10/93 | WINTER | NAMED INVENTOR | A | ATTORNEY DOCKET NO. |
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15M2/0801

SECURIO JR., C

EXAMINER

| | |
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| ART UNIT | PAPER NUMBER |
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08/01/94

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 5-5-94 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-3, 6-8 & 11-15 are pending in the application.

Of the above, claims 1-3, 11, 13 & 14 are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 6-8, 12 & 15 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable. ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on _____, has been ☐ approved. ☐ disapproved (see explanation).
12. ☒ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☒ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

Art Unit 1512

The restriction requirement made in the last office action is made final and claims 1-3 11, 13 and 14 are withdrawn from consideration as being directed to a non-elected invention.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 6-8, 12 and 15 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over EP 0310734 (EP '734).

Claims 6-8, 12 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over EP0128046 (EP '046) and WO 90/03414 (WO '414) optionally further taken with EP 0351189 (EP '189).

Claim 12 is rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Schreck et al. "902 and '074.

Schreck et al. '902 and '074 teach a propylene polymer molding composition prepared by direct polymerization wherein the composition has polymers with MPS (melting points) which differ within the range set forth in applicants claim 12 and claim 12 as broadly set forth is not seen to recite process parameters which otherwise distinguish over those references. (Se e.g the working Examples in the references).

EP '734 discloses a process for preparing a polyolefin composition (e.g. propylene polymer) in the presence of a catalyst comprising at least two different metallocene catalysts, such as Z, T₁ and Hf containing metallocene catalysts and an aluminoxane such as claimed. Though the reference is primarily concerned with obtaining compositions having a multimodal mol. wgt., it is not clear that inherently products within the reference process are not obtained which also have different melting points (MPS) wherein the MPS differ by at least 5°C. Note e.g. the Table 1, wherein the product of Ex B, Hf containing catalyst only had a MP° of 143°C and the products of Exs C & D with only the Zr containing catalyst had MPS of 137° and 138°C. It would at least be considered that it would be prima facie obvious to obtain mixtures of polymers with PMS² within the scope of applicants claims by practicing the process of EP '734 within the scope of its teachings.

EP '046 discloses the production of polyolefin, e.g. E polymer, compositions utilizing a catalyst system comprising at least two different metallocene catalyst, e.g. containing a Group 4 metal which includes Zr, Ti, and Hf, and aluminoxane. The reference teaches that the reactor blends can yield mixtures of polymers having different properties such as MP°, mol. wgt., density, comonomer content, etc.

WO '414 teaches E polymer blends which can have different comonomer contents which are prepared with a catalyst system comprising aluminoxane and metallocene (e.g. Zr, Ti or Hf containing) wherein the blends can be prepared by directed polymerization in a single reactor using two or more catalysts. (See e.g. pages 4, 8, 12-18 and the Figs. and Exs). Inherently the E polymers with different comonomer contents would have different MP's.

EP '189 teaches mixtures of E polymers having different MP's within those such as claimed so as to provide for the manufacture of films having improved properties for certain applications.

Though the MP's of the polymers in the mixtures produced in EP '046 and WO '414 are not set forth, it would be considered obvious and within the scope of the teachings of those references to produce polymer mixtures wherein ~~these~~ polymers have MP's which differ by amounts such as to be within the scope of applicants claims, especially in view of the teachings in EP '189 which

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teaches the desirability of employing E polymer mixtures with MPS within those claimed in certain film applications. Applicants other claimed MP° limitations, e.g. pertaining melting peak height and width, are considered to follow from the MP° difference and be inherent in the polyolefin mixtures taught or suggested by the references.

Any additional or particular claim parameters which may not be specifically set out in the references are considered to be inherent in the reference products or not to involve anything unobvious absent a showing to the contrary.

Claim 12 is rejected under 35 U.S.C. § 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 fails to recite the catalyst employed and the polymerization conditions; applicants specification as to the embodiment presently at hand teaches at least two different metallocene catalyst systems and polymerization conditions as set forth e.g. in claim 6.

Seccuro/maj
July 26, 1994


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